

REMARKS

This responds to the Office Action mailed on April 19, 2005. By this amendment, claims 1 and 15 are amended. No claims are canceled, or added. As a result, claims 1-8 and 15-27 are now pending in this application. Reconsideration of this application is requested in view of the above amendments to the claims and the following remarks.

§102 Rejection of the Claims

Examiner's Rejection: Claims 1-8 and 15-27 were rejected under 35 USC § 102(b) as being anticipated by Fredrickson (U.S. 5,952,839).

Response to Rejection: A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *M.P.E.P. § 2131*. To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *PPG Industries, Inc. V. Guardian Industries Corp.*, 75 F.3d 1558, 37 USPQ2d 1618 (Fed. Cir. 1996). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Claim 1, as amended, recites "...an element having a surface for electrically contacting a first plane; and a probe having a free end positioned in a second plane for electrically contacting the second plane." Therefore claim 1 requires both a surface for electrically contacting a first plane and a probe for electrically contacting a second plane. The Fredrickson reference does not teach an element having a surface for electrically contacting a first plane, and a probe having a free end positioned in a second plane for electrically contacting the second plane. Each of the contacting pins (which the Examiner referred to as a "probe") 445, 447, 449 of the Fredrickson reference is for electrically connecting to a single pad 405 in a single plane. The specification of Fredrickson describes the arrangement, as follows:

Configurable site 433 has a plurality of electrically conducting pins 445, 447, 449 that are electrically connected to a plurality of electrical conductors such

as power, ground and an ATE signal conductor respectively. Each of the plurality of pins 445, 447, 449 is compressible. The electrically conductive connection pad 405 at the target site on the handler board 401 is shaped to make electrical contact with any of the plurality of pins 445, 447, 449. To configure the configurable site 433, an operator selectively allows one of the electrically conducting pins 445, 447, 449 to make contact with the conductive pad 405 at the target site as described below. Thus, because power and ground connections can be configured, any handler board can be connected to the tester board as long as the connection pads on the handler board 401 can be physically aligned and electrically connected to selected compressible pins extending upward from the tester board 431.

FIG. 4c illustrates a side view of the assembled tester board 431 and handler board 401 at the cutting planes 4c. The plurality of pins 445, 447, 449 extend upward from the tester board 431 at the configurable site 433. An insulator 451 is placed between the tester board 431 and the handler board 401. This insulator has a configuration aperture 453 that allows the first compressible pin 447 of the plurality of compressible pins 445, 447, 449 to extend through the insulator and make electrical contact with the target pad 405. The other pins 445, 449 at the configurable site 433 are blocked from making electrical contact with the target pad 405, the insulator 451 physically and electrically separating these pins 445, 449 from the target pad 405. Thus, by aligning the insulator 451 at the configurable site 433, the ATE device operator selects which of a plurality of electrical conductors at the configurable site 433 on the tester board 431 is electrically connected to the target pad 405 that is electrically connected to the first electrical conductor 423 and the via 421 at the test site 420 connecting the socket 419. (See Column 6, line 58 to Column 7, line 29 of the Fredrickson reference. Underlining added for emphasis)

Each of the contacting pins (which the Examiner referred to as a “probe”) 445, 447, 449 of the Fredrickson reference is for electrically connecting to a pad in a single plane (pad 405). None of the contacting pins are for electrically connecting to a second pad or device, much less a pad or device in a second plane. An insulator 451 is placed in the path of some of the pins to prevent electrical connection to the pad. Accordingly, claim 1 is improperly rejected under 35 USC 102(a) since the Fredrickson reference fails to teach each and every element as set forth in the claim, as required by *M.P.E.P. § 2131*. Claims 2 - 8 each depend from claim 1, either directly or indirectly, and include the recitations of claim 1 by their dependency. Accordingly, claims 2 -8 also are improperly rejected under 35 USC 102(a).

Claim 15 has been amended to recite “...a first test probe adapted to contact electrical elements in a first plane; and a second test probe, the second test probe further comprising: an

element having a surface for contacting a first plane; and a probe having a free end positioned in a second plane adapted to contact an electrical element in the second plane.” The Fredrickson reference only has contact pins adapted to contact a single pad in a single plane and therefore does not teach each and every element of the invention as now claimed in claim 15.

Accordingly, claim 15 overcomes the rejection under 35 USC § 102(a) as being anticipated by the Fredrickson reference (U.S. Patent No. 5,952,839). In addition, claims 16 - 17 each depend from claim 15, either directly or indirectly, and include the recitations of claim 15 by their dependency. Accordingly, claims 16-17 also are improperly rejected under 35 USC 102(a).

Claim 18 recites “...contacting a first pad on the device under test located in a first plane; and contacting a second pad on the device under test in a second plane substantially simultaneously as contacting the first pad.” The Fredrickson reference teaches contacting pins for contacting a single pad in a single plane. Consequently, there is no teaching of contacting a second pad on the device under test, much less contacting a second pad in a second plane or doing so substantially simultaneously as contacting the first pad. As a result, the rejection of claim 18 under 35 USC § 102(a) as being anticipated by the Fredrickson reference (U.S. Patent No. 5,952,839) is overcome since the Fredrickson reference fails to teach each and every element of claim 18. In addition, claims 19 - 21 each depend from claim 18, either directly or indirectly, and include the recitations of claim 18 by their dependency. Accordingly, claims 18-21 also are improperly rejected under 35 USC 102(a).

Claim 23 recites “...contacting a plurality of pads located in a first plane on the device under test; and contacting at least one other pad in a second plane on the device under test substantially simultaneously as contacting the plurality of pads located in the second plane.” The Fredrickson reference teaches contacting pins for contacting a single pad in a single plane. Consequently, there is no teaching of contacting a second pad on the device under test, much less contacting a second pad in a second plane or doing so substantially simultaneously as contacting the first pad. There is also no teaching of contacting a plurality of pads in a second plane. As a result, the rejection of claim 23 under 35 USC § 102(a) as being anticipated by the Fredrickson reference (U.S. Patent No. 5,952,839) is overcome since the Fredrickson reference fails to teach each and every element of claim 23. In addition, claims 24 - 27 each depend from claim 23,

either directly or indirectly, and include the recitations of claim 23 by their dependency.

Accordingly, claims 24-27 also are improperly rejected under 35 USC 102(a).

Claim 22 recites "...a component having a main body, the component attached to the primary side of the printed circuit board and further including a pad attached to the main body of the component, the pad positioned between the main body of the component and the primary side of the printed circuit board; a ground plane connection surface attached to the secondary side of the printed circuit board, the printed circuit board having an opening therein positioned near the pad attached to the main body of the component." Simply put, the Fredrickson reference does not teach any details of such an electrical device. The specification discusses "...a socket 419 (at a test site 420) that physically holds the IC under test (not shown) and electrically connects the vias 403 at the test site 420 to the contacts on the IC." (See column 6, lines 43-46) Although not specifically mentioned, the electrical device under test in Fredrickson appears to be a dual in-line package (DIP) because the socket 419 has an arrangement of vias 403 that are arranged to receive a DIP. Even if one were to assume a DIP as the electrical device under test, the recitations of claim 22 are not met. Accordingly, the rejection of claim 22 under 35 USC § 102(a) as being anticipated by the Fredrickson reference (U.S. Patent No. 5,952,839) is overcome since the Fredrickson reference fails to teach each and every element of claim 22.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6977) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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